

Armed Forces College of Medicine AFCM



Pleura & Lung

INTENDED LEARNING OBJECTIVES (ILO)



By the end of this section each of the student

should be able to:

Identify parts of pleura.

Identify the side, surfaces & borders, structures in the hilum and mediastinal relations of right and left lungs.

Pleura



The pleura is divided into two major types, based on location:

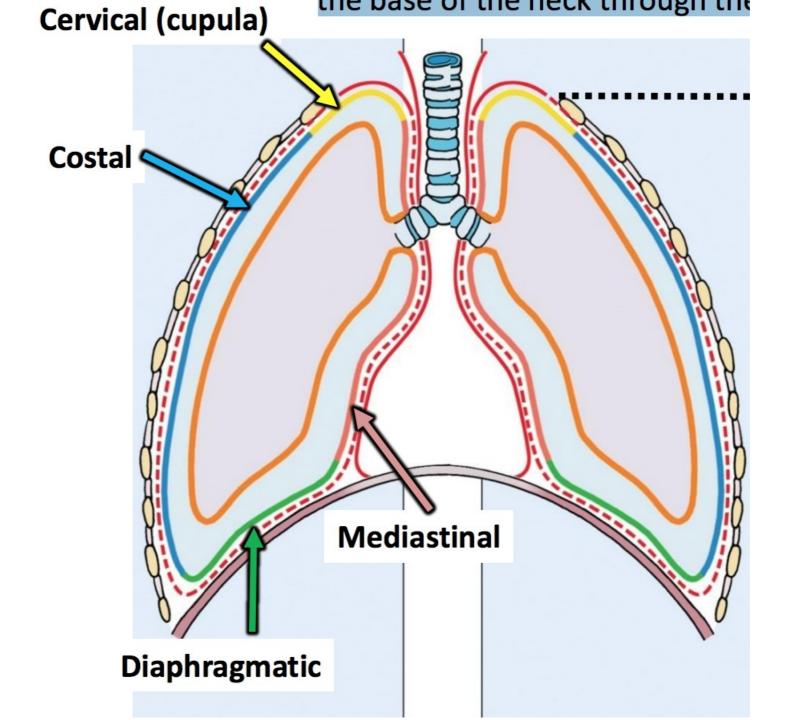
Parietal pleura: The superficial layer lining the wall of the thoracic cavity.

Visceral pleura: The deep layer that adheres to the lungs.

Pleura



- The names given to the parietal pleura <u>correspond to the</u> <u>parts of the wall with which they are resting upon:</u>
- 1. Costal part: covers the internal surface of the thoracic wall
- 2. Diaphragmatic part: covers the superior thoracic part of the diaphragm.
- 3. Mediastinal pleura: covers the lateral sides of the mediastinum.
- 4. Cervical part: covers the apex of the lungs (superior to the 1st rib & Superior Thoracic Aperture)

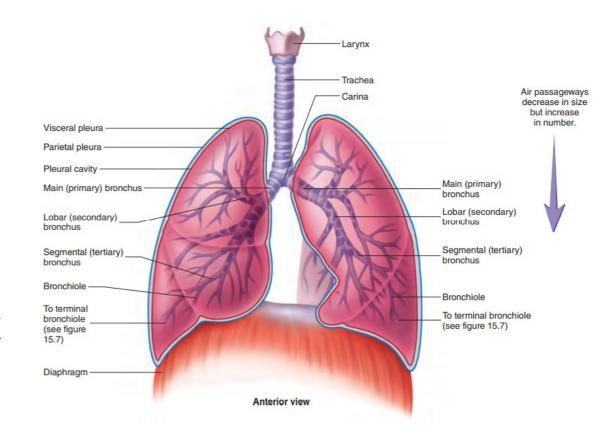




Each lung has conical shape with an apex, base, two surfaces and three borders

Apex

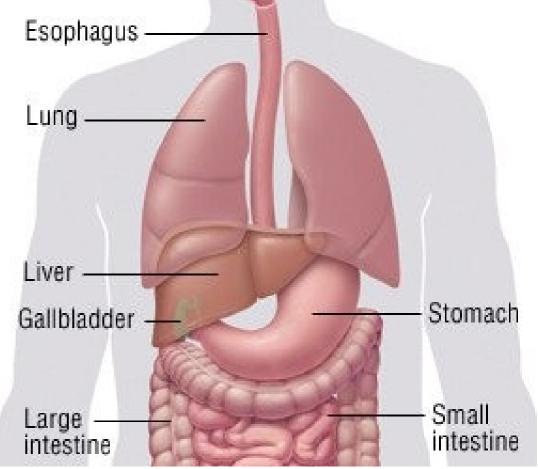
- 1. Is blunt
- 2. Projects upward into the neck for about 1 in. (2.5 cm) above the clavicle.





Base (diaphragmatic surface) that:

- 1. Rests upon the upper surface of the diaphragm
- 2. Separated from the liver by the right dome of diaphragm on the right side.
- 3. Separated from the stomach and spleen by the left dome of diaphragm on the left side.





Two surfaces (Costal and medial)

The costal surface is <u>convex</u>, lies immediately adjacent to the ribs and intercostal spaces of the thoracic wall.

The medial surface is divided into two parts:

- 1. Mediastinal part (anterior 2/3rd) related to the mediastinal structures and <u>contains the hilum</u>.
- 2. Vertebral part (posterior 1/3rd) related to the vertebral bodies and intervertebral discs.

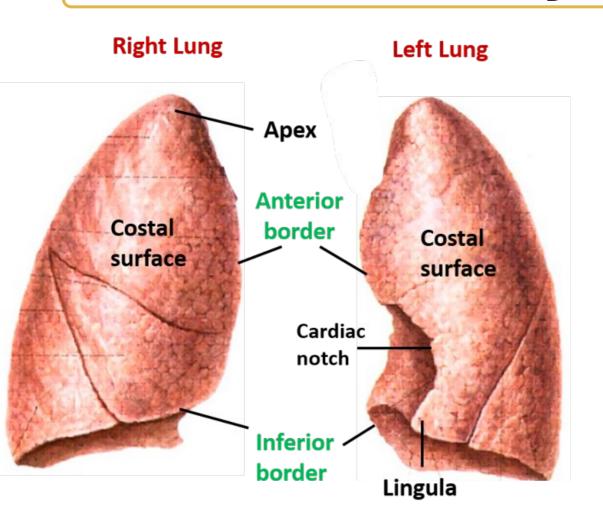
Three borders (anterior, posterior, and inferior)

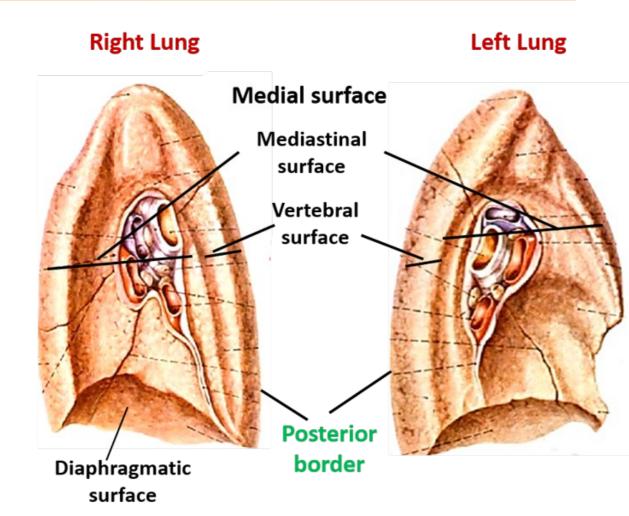
Anterior border: thin and overlaps the heart.

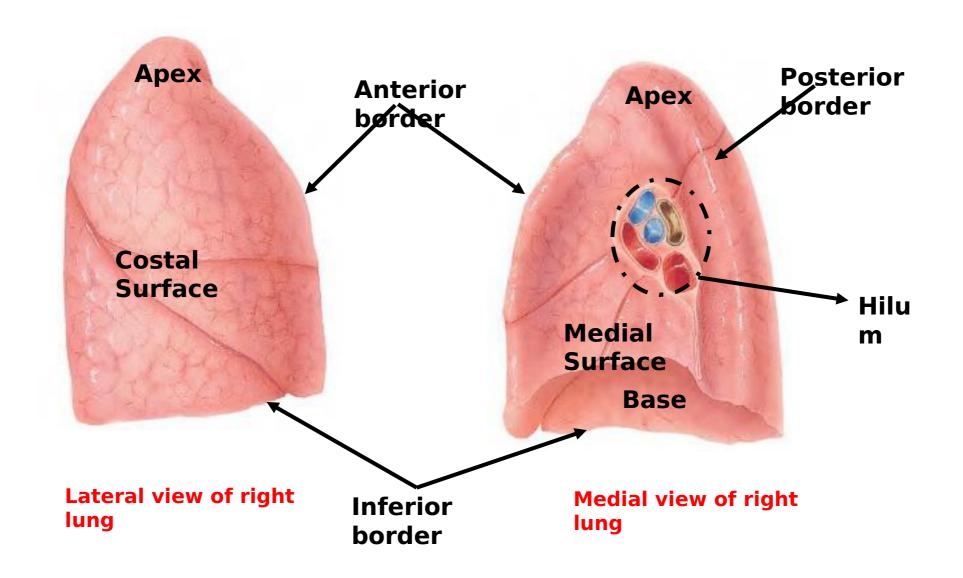
Posterior border: thick and rounded, lies beside the vertebral column

Inferior border: sharp and separates the base from the costal surface.



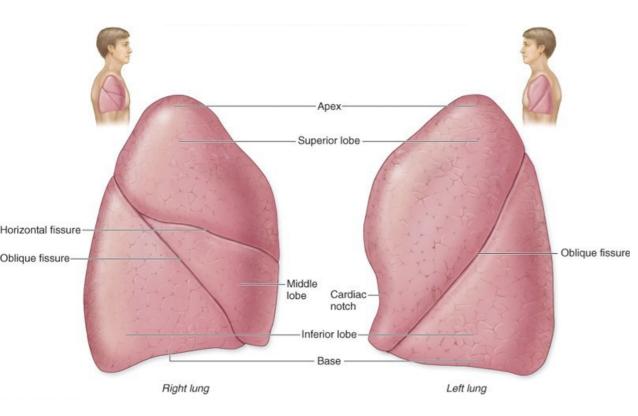


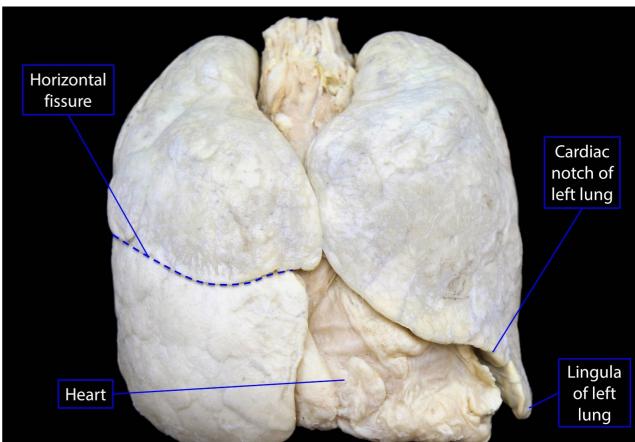




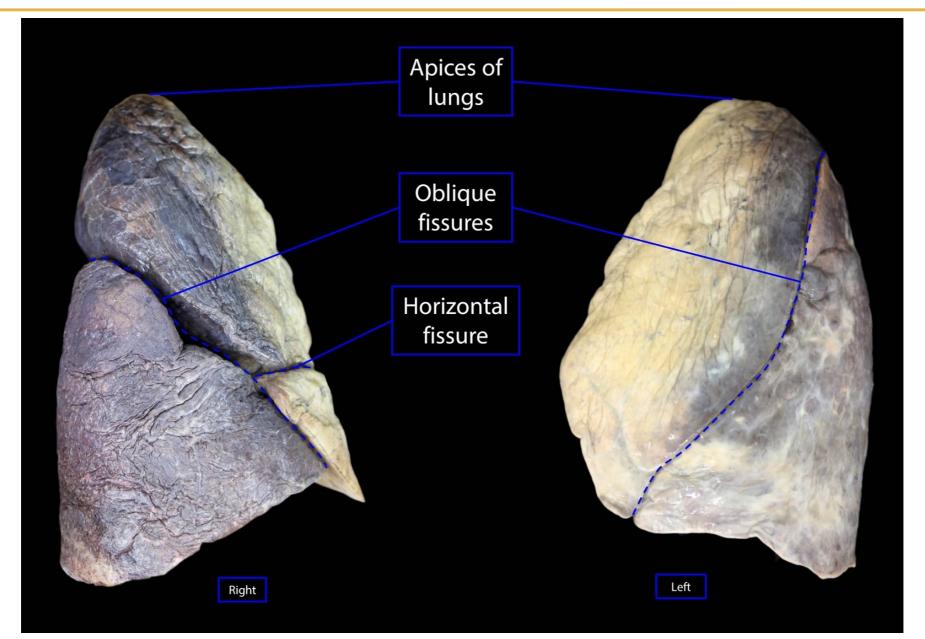


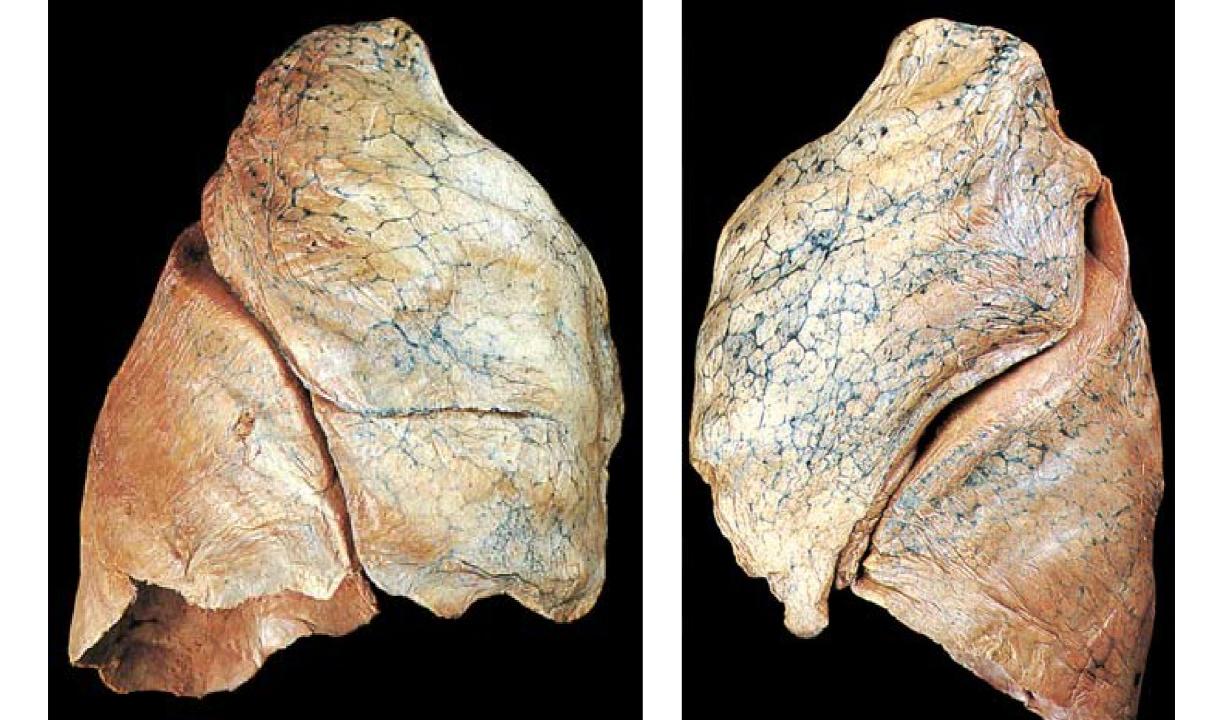
The anterior border of left lung has a notch called the cardiac notch, into which the apex of the heart projects.





Lobes and fissures of the Lung®





Identify the side of the lung

Apex



Apex directed upwards, base directed downwards, the anterior sharp border is directed forwards, and the posterior rounded border backwards.

Costal surface lateral and hilum medial.

Post. border Ant. border **Base** Netter Basic Science: Atlas of Human Anatomy by Frank H. Netter (Paperback, 6th Edition, 2014)

Identify the side of the lung

Base



Apex directed upwards, base directed downwards, the anterior sharp border is directed forwards, and the posterior rounded border backwards.

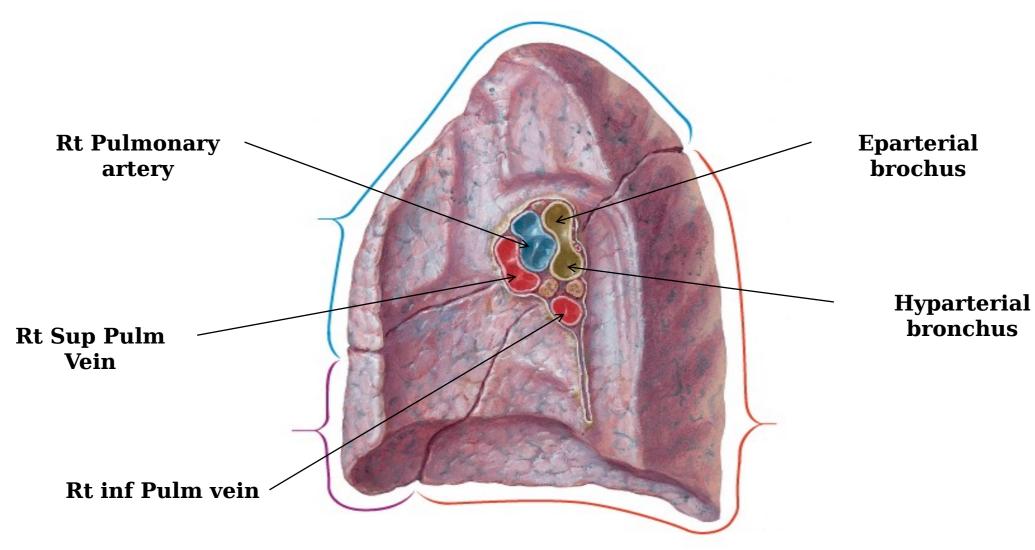
Costal surface lateral and hilum medial.

Apex Ant. border Post. border **Cardiac** notch Lingul \mathbf{a}

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Hilum of Right lung

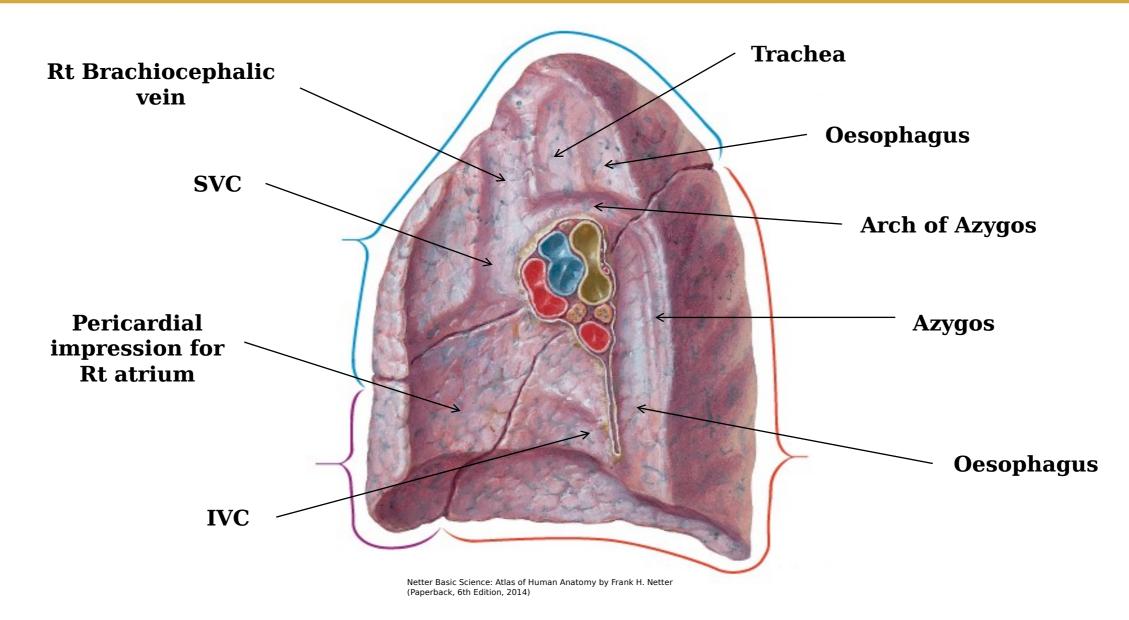




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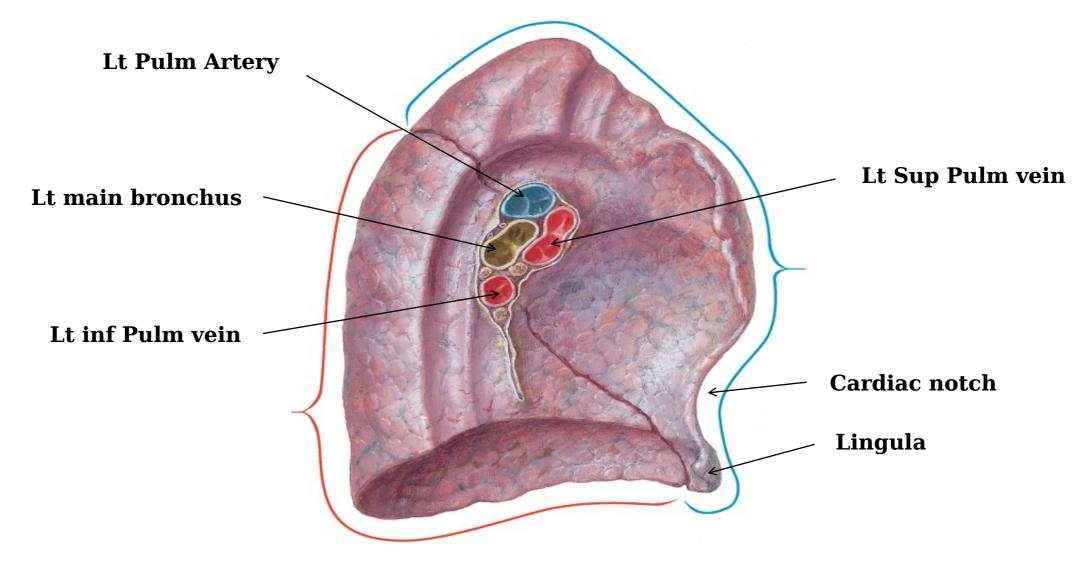
Relations of mediastinal surface of Right lung





Hilum of Left lung

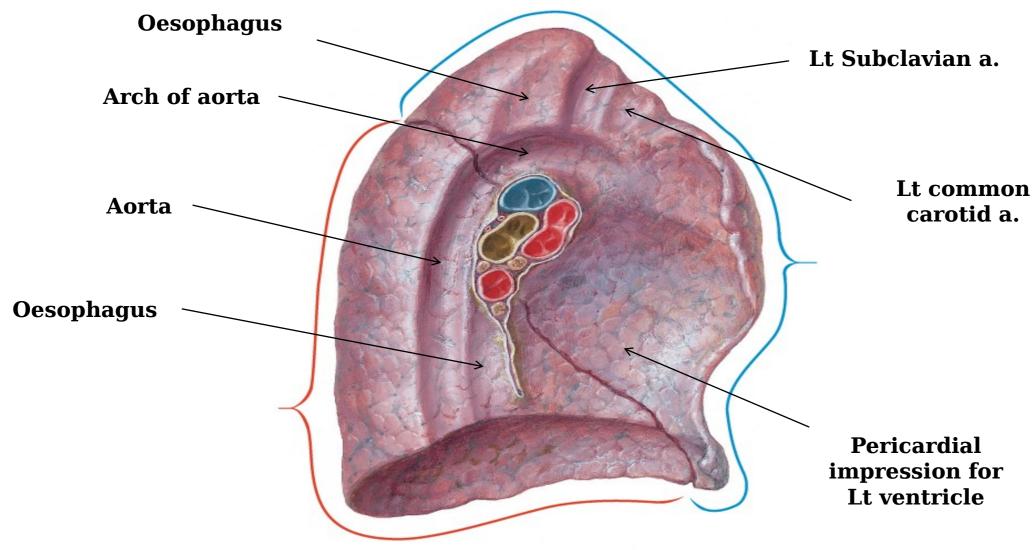




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Relations of mediastinal surface of left lung





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Thank you